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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,552	10/01/2003	Peter Leibinger	TAI-10	7670
26614	7590	03/22/2005	EXAMINER	
PEPE & HAZARD, LLP 225 ASYLUM ST. HARTFORD, CT 06103			ELVE, MARIA ALEXANDRA	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/676,552	<b>Applicant(s)</b> LEIBINGER ET AL.	
	<b>Examiner</b> M. Alexandra Elve	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/2/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

*[Handwritten signature]*

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6 & 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth, Jr. (USPN 5,481,083) in view of Puozzo et al. (USPN 4,851,637).

Smyth, Jr. discloses a system which stacks and laser cuts materials. The laser cutting head assembly is shiftable anywhere within the laser cutting zone and upper and lower pallet bearing carriages are shiftable between the cutting zones and the loading/unloading zones. The main frame has a gantry on which is mounted the laser cutting head assembly. The gantry has rails and shift longitudinally. Smyth, Jr. teaches the lower of the carriage, but not does not vertical movement of the laser head. (abstract, figures, col. 2, col. 3, col. 4, col.5)

Puozzo et al. discloses an apparatus in which the laser head has five axes of motion and is mounted on an arm, which is in turn mounted onto a gantry with rails

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(guides). The axes are controlled by a microprocessor and suitable motors (abstract, figures, col. 4, col. 5)

It would have been obvious to one of ordinary skill in the art at the time of the invention to move the laser head and so forth, as taught by Puozzo et al. in the Smyth, Jr. system because this is merely a variation on movement of the workpiece.

Claims 3, 7 & 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth, Jr. and Puozzo et al. and further in view of Klingel et al. (USPN 5,132,510).

Smyth, Jr. and Puozzo et al. disclose the use of motors, but do not specifically teach the use of a rack and pinion system.

Klingel et al. discloses a laser machining system in which the laser head is mounted on a carriage. The drive system for the carriage is a rack and pinion system.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a rack and pinion drive system, as taught by Klingel et al. in the Smyth, Jr. and Puozzo et al. system because this enables precision positioning.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smyth, Jr. and Puozzo et al. and further in view of Serruys (USPN 6,046,428).

Smyth, Jr. and Puozzo et al. disclose the use of carriages for loading and unloading, but do not specifically teach the use of suction.

Serruys discloses a laser cutting device for cutting plate materials. In the figures a loading mechanism is shown which uses suction cups to pick up plate material and place in position for loading onto a carriage.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use suction as taught by Serruys in the Smyth, Jr. and Puozzo et al. system because this is merely a variant on loading mechanisms.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See US PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 18, 2005.

A handwritten signature in black ink, appearing to read 'M. Elve', with a long horizontal line extending to the right.

M. Alexandra Elve  
Primary Examiner 1725